



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/527,629	03/17/2000	Roy P. DeMott	2168	3035

25280 7590 06/05/2003

MILLIKEN & COMPANY  
920 MILLIKEN RD  
PO BOX 1926  
SPARTANBURG, SC 29304

EXAMINER
----------

BEFUMO, JENNA LEIGH

ART UNIT	PAPER NUMBER
----------	--------------

1771

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Applicant No.	Applicant(s)
	09/527,629	DEMOTT ET AL. <i>G</i>
	Examiner	Art Unit
	Jenna-Leigh Befumo	1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 17 April 2003.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-34 is/are pending in the application.

4a) Of the above claim(s) 16-23 and 26-34 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-6,11-15,23 and 24 is/are rejected.

7) Claim(s) 7-10 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 24, 2003 has been entered.

### ***Response to Amendment***

2. Amendment B, submitted as Paper No. 18 on February 24, 2003, has been entered. Claims 1 and 2 have been amended. Therefore, the pending claims are 1 – 34. Claims 16 – 23 and 26 – 34 are withdrawn from consideration as being drawn to a nonelected invention.

3. Amendment B is sufficient to overcome the 35 USC 103 rejection based on Hepflinger (5,916,723) in view of Schuette et al. (5,725,951), set forth in section 12 of the previous Office Action, since Schuette et al. suggests using the finish treatment for yarns, as a way to protect the yarns during processing. And as argued by the Applicant (Amendment B, page 6, paragraph 3), Schuette et al. would not suggest to one having ordinary skill in the art to use the same finish to produce a hydrophobic treated plush surface on a warp knitted fabric. However, a new grounds of rejection based on Hepflinger et al. is set forth below.

4. Amendment B is sufficient to overcome the obviousness-type double patenting rejection based on Hepflinger (5,916,723) in view of Schuette et al. (5,725,951), set forth in section 9 of the previous Office Action, since Schuette et al. suggests using the finish treatment for yarns, as a way to protect the yarns during processing. Schuette et al. would not suggest to one having

ordinary skill in the art to use the same finish to produce a hydrophobic treated plush surface on a warp knitted fabric.

5. Additionally, Amendment B is sufficient to overcome the 35 USC 103 rejection based on Scheller (4,712,281), set forth in section 11 of the previous Office Action, since Scheller fails to teach using microdenier fibers in the pile yarn.

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1 – 6, 11 – 15, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hepfinger in view of Stockburger (4,427,557).

The features of Hepfinger have been set forth in the previous Office Action. Hepfinger discloses a warp knit fabric made with pile yarns and ground yarns, the pile yarns having been raised or broken to produce a plush surface. The warp knit fabric is preferably made from polyester (column 2, lines 57 – 59). The pile yarns are preferably multifilament, microdenier yarns having a linear density of 1.1 denier or less for each filament (column 1, lines 40 – 41). While the ground yarns are monofilament yarns with a linear density of at least 10.0 denier (column 1, lines 42 – 44). While Hepfinger teaches the structural limitations of the claimed warp knit fabric, Hepfinger fails to teach adding a hydrophilic treatment to the fabric.

Stockburger is drawn to a textile treatment composition to produce textile fabrics having improved properties (column 1, lines 6 – 9). Particularly, Stockburger is drawn to treatment compositions which impart improved durable soil release properties to textile materials containing polyesters (column 1, lines 9 – 13). Further, Stockburger teaches that polyester

materials are known to have pronounced tendency for retaining soil and stains, and resist release of the soil and stains upon repeated washings (column 1, lines 19 – 23). Thus, to overcome these problems polyester fabrics are treated with a variety of textile treatment compositions which provide soil resistance, wicking, resistance to soil redeposition, and durability to repeated washings (column 1, lines 25 – 30). Stockburger teaches polyester textiles treated with one or more copolymers exhibit excellent soil resistance, good wicking, and excellent durability and resistance to soil redeposition during cleaning (column 1, lines 45 – 50). The copolymer treatment composition includes ethylene glycol, polyethylene glycol and dicarboxylic acid containing carbon, hydrogen and oxygen (column 2, lines 35 – 40). This mixture would be hydrophilic. Thus, it would have been obvious to one of ordinary skill in the art to add the treatment composition taught by Stockburger to the polyester fabric taught by Hepfinger since Stockburger teaches that it is known to treat polyester fabrics to produce a soil resistant fabric which is easier to clean and has good wicking properties because otherwise the polyester fabrics readily soil and stain. Further, Stockburger teaches that polyester textiles treated with one or more copolymers of the invention exhibit excellent soil resistance, good wicking, and excellent durability and resistance to soil redeposition during cleaning. Therefore, claims 1 – 6, 15, 24, and 25 are rejected.

With respect to the properties recited in claims 11 – 14, although the limitations of absorbency, wicking in 30 minutes, printing definition, and instantaneous moisture dissipation, are not explicitly taught by Hepfinger or Stockburger, it is reasonable to presume that said limitations would be met by the combination of the two references. Support for said presumption is found in the use of similar materials (i.e. warp knitted fabric and hydrophilic

copolyester treatment compositions) and in the similar production steps (i.e. applying the treatment composition to the warp knit fabric) used to produce the treated warp knit fabric. The burden is upon the Applicant to prove otherwise.

***Allowable Subject Matter***

8. Claims 7 – 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach or fairly suggest producing a warp knitted fabric of at least three bar construction, comprised of ground yarns and pile yarns, wherein the pile yarns on the technical back are raised or broken, and then chemically treated with a treatment composition comprising an anionic-ethoxylated sulfonated polyester and a high molecular weight ethoxylated polyester, to form a hydrophilic plush surface.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (703) 605-1170. The examiner can normally be reached on Monday - Friday (9:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Jenna-Leigh Befumo  
May 28, 2003



CHERYL A. JUSKA  
PRIMARY EXAMINER